

# CROSSSECTION



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## Annual Meeting Details Inside

## EMERALD ASH BORER BIOLOGICAL CONTROLS — HOPE FOR THE FUTURE?

If you own ash trees, love Ohio forests or depend on the wood products that come from our great forests (and we all do!) you are probably now aware of the Emerald Ash Borer (EAB) and its assault on our native ash trees. The Emerald Ash Borer arrived in Ohio in 2003 and now inhabits Lake County, which was quarantined in 2010. The Ohio Dept. of Agriculture (ODA) has been working hard to eradicate EAB from the known infestation sites; however, those efforts have largely been unsuccessful. A new biological control program by the U.S. Forest Service permitted through the USDA Animal & Plant Health Inspection Service may provide hope for future generations of our ash trees.

EAB is a deadly threat to ash trees (*Fraxinus* spp.), killing host trees in 3 to 5 years of infestation. EAB belongs to a group of insects known as metallic wood-boring beetles. Adults are dark metallic green in color, 1/2 inch in length and fly only from early May until September. Larvae spend the rest of the year developing beneath the bark of ash trees, and when they emerge as adults, leave D-shaped exit holes in the bark about 1/8 inch wide.

The EAB first infests the tops of ash trees and works its way down the tree. Infested ash trees are essentially choked to death by the larvae that feed on the cambium layer; the live tissue just beneath the bark responsible for transporting nutrients throughout the tree. Signs of EAB include dieback at the tops of ash trees, D-shaped exit holes or S-shaped larval lines (serpentine feeding galleries) beneath the bark.

The larvae of the Emerald Ash Borer cause extensive damage under the bark. They disrupt nutrient transport through the living part of the tree, causing leaf die-back and sprouting along the trunk.

A new U.S. Forest Service program approved by the USDA Animal & Plant Health Inspection Service (APHIS) has begun to introduce three parasitoid wasp species at research sites in Michigan and Ohio in order to determine their long-term effect of EAB reduction. The 3 species of wasps come from China, two of which are new species identified by the U.S. Forest Service team sent to China to discover natural enemies of EAB.

Following laboratory research that started in 2004, federal permits for use of the 3 species has been approved and must follow the approved USDA EAB Biocontrol Guidelines. The 3 species are *Tetrastichus planipennisi*, *Oobius agrilli*, and *Spathius agrilli*. Both *Tetrastichus planipennisi* and *Spathius agrilli* attack the larvae stage of EAB and *Oobius agrilli* attacks the egg stage of development. The introduction of these wasp species may not slow the spread, but perhaps will control populations in devastated areas to the point at which ash seedlings can emerge and regenerate to reclaim their niche in our hardwood forests.

Citizens can help control this pest by reporting signs of EAB to the ODA at 1-888-Ohio-EAB. Citizens should also refrain from moving ash trees, ash lumber or firewood inside or beyond borders of counties with infestations, which are under state and federal quarantines. Also do not transport firewood into Ohio from other infested states Ohio such as Michigan, Indiana and Pennsylvania where other infestations exist.

To learn more about EAB visit:  
[www.ohioagriculture.gov/eab](http://www.ohioagriculture.gov/eab)

To learn more about EAB biological control visit: [www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/emerald\\_ash\\_b/downloads/eab-biocontrol.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/eab-biocontrol.pdf)



# You Are Invited to:

## Lake County Soil and Water Conservation District's Sixty-fourth Annual Meeting

THURSDAY, OCTOBER 21, 2010  
GRAND RIVER CELLARS  
5750 MADISON RD  
MADISON OH 44057

6:00	Polls Open
6:00	Social Hour Appetizers Cash bar Cellar tours
7:00	Business Meeting Recognition and Awards
7:30	Polls Close
8:00	Chinese Auction Door Prizes

RSVP BY OCTOBER 14TH  
BY RETURNING THE FORM BELOW  
WITH \$18 PAYMENT TO:  
LAKE SWCD  
125 E. ERIE ST  
PAINESVILLE OH 44057

### *Meet the Candidates*

**Dick Baker** is a former industrial engineer and retired Roads Superintendent/ Assistant Administrator for Madison Township. Dick and his wife Ella have three sons and six grandchildren. He is active as a volunteer in various efforts and organizations and is a church Choir Director. He is interested in the conservation of natural resources, the continued development of conservation easements, water quality improvements, and farmland retention, particularly in Lake County. Mr. Baker is currently serving his 12th year on the Lake SWCD Board of Supervisors.

**Denise Brewster** has over 30 years of experience in education in Lake and Geauga counties. She worked to develop and use outdoor learning spaces at Leroy Elementary, and the South Euclid-Lyndhurst and West Geauga districts., instilling in students an interest in and appreciation of our environments. Denise resides in Concord Township and is excited about agricultural preservation and promoting conservation measures for the future of Lake County. Ms. Brewster has previously served three years on the Lake SWCD Board of Supervisors.

*This year's Annual Meeting will feature light refreshments and no formal dinner*

YES, I WILL BE ATTENDING! ENCLOSED IS MY PAYMENT OF \$18 PER PERSON



**Lake County Soil & Water  
Conservation District**

LAKE SWCD  
64TH ANNUAL MEETING  
THURSDAY, OCTOBER 21, 2010  
GRAND RIVER CELLARS

Name: _____	Phone Number _____
Address, City _____	E-mail _____
Total number attending _____ x \$18	Please list guests' names: _____
Amount enclosed: _____	



## MICROCYSTIN IN LAKES AND RESERVOIRS

### HARMFUL ALGAE BLOOMS

Microcystin has been in the news quite a bit recently, though there seems to be some confusion about what it is and where it comes from. The term “microcystin” refers to a group of toxins produced by certain bacteria called cyanobacteria. You might remember cyanobacteria as the “blue-green algae” you learned about in school. Microcystin attacks the liver of people and some animals exposed to it, causing permanent damage and, in some cases, death. Often the first sign of a microcystin problem is illness and death in water-loving dogs during the height of summer.

Controlling microcystins means controlling the growth of the blue-green algae that produce the toxins. These cyanobacteria exist all over the planet, but only become harmful when they grow in large numbers. In the freshwater environments of northeast Ohio, cyanobacteria often form colonies in the shape of dense mats, long filaments, or even hollow spheres. Regardless of shape, they can all be dangerous in large numbers.

Since blue-green algae is photosynthetic, it gets its energy from the sun. However, the algae also needs certain nutrients to exist in the water in order for the population to grow. This is where humans can have an effect on the matter. Algae requires, among other things, nitrogen and phosphorous to grow. Without an abundance of these nutrients, the algae will not be able to grow as rapidly or develop colonies as large. Much of the

nitrogen and phosphorous reaching our rivers and lakes comes from human sources. These include pet waste, manure and malfunctioning septic tanks; runoff from properties where fertilizer was over applied; and dumping of organic wastes such as grass clippings and leaves into our streams.

While the level of danger in Ohio this summer didn't reach alarming proportions, several popular recreational waters were declared harmful for human contact, including some in northeast Ohio. If you see an unusual colony of algae, it is best to avoid contact with the water and with any algae mats that may have washed up on shore.

To help reduce the risk of toxic algae outbreaks in your favorite waterways, use fertilizer sparingly if at all, check your septic system and keep it maintained, establish filter strips of long grass along waterways to deter geese and absorb runoff, avoid using algicides (they can increase the level of toxins in the water), and prevent runoff from livestock and agricultural areas. Lake County has many charming ponds and streams, and dozens of beautiful beaches along Lake Erie to enjoy on hot summer days. Each of us need to do our part to keep them that way.

For more information on harmful algae blooms, visit [http://www.ohioseagrant.osu.edu/\\_documents/publications/FS/FS-091HarmfulAlgalBloomsInOhioWaters2010.pdf](http://www.ohioseagrant.osu.edu/_documents/publications/FS/FS-091HarmfulAlgalBloomsInOhioWaters2010.pdf)

## DEVELOPING NURSERY IRRIGATION WATER

### QUALITY PROTECTION STRATEGIES

Changing landscapes, urbanization and increased impervious cover continue to shape water quality protection efforts in Lake County. Non-point source pollution is a direct threat to the quality of local irrigation water sources and to the livelihood of local agricultural producers. Vegetable, grape, specialty and horticultural crop producers alike are threatened by pollutants in their invaluable irrigation water supplies. In order to address issues that have surfaced in this sector of the county's economic engine, the District is working with local growers to conduct self-evaluations of their irrigation systems.

Irrigation management practices have the potential to influence both the quantity and quality of crop produced as well as water quality on and off the farm. Inappropriate or inefficient irrigation practices may lead to crop stress, disease and/or loss, as well as resource water contamination, erosion, or salinity problems. Conducting an irrigation management self evaluation enables producers to sharpen their focus on specific areas of concern and begin the process of establishing a baseline of water quality information. Strategies for water quality and quantity improvement and integration of best management practices on the farm will increase profitability and farm sustainability. Voluntary adoption of a best management practice strategy will also help ensure the most effective use of water by the agricultural producer community, reduce environmental impacts of irrigation, help maintain a positive public perception of agriculture, and reduce the need for regulations in the future.

The Irrigation Management Self Evaluation Workbook is available for use by producers within the Lake Erie watershed was developed in part from information obtained from the Queensland (Australia) Fruit and Vegetable Growers Ltd. Federal grant assistance for this project was provided by the National Oceanic and Atmospheric Administration, and through the Ohio Coastal Management Program, administered by the Ohio Department of Natural Resources, Office of Coastal Management.

The workbook provides assessment questions focused on water supply, irrigation infrastructure, in-field application systems, irrigation management issues and irrigation sustainability issues. Copies of the workbook may be obtained at the District office in Painesville. Water quality affects us all, and everyone can play a part in keeping our water resources clean – producers and consumers alike.





Recycled Paper

## WHO WANTS TO BE A CONSERVATIONIST?

Microcystins and warnings about the safety of our recreational waters have been all over the news this summer. What do you know about harmful algal blooms?

1) The organisms responsible for harmful algae blooms are typically:

- A. Filamentous algae, such as *Spirogyra*
- B. Cyanobacteria, such as *Nostoc*
- C. Dinoflagellates, such as *Pfiesteria*
- D. Planktonic algae, such as *Euglena*

2) Harmful algae blooms rely on an excess of which nutrient in the water, typically a result of polluted runoff from farms and lawns

- A. Nitrogen
- B. Carbon
- C. Sediment
- D. Phosphorous

3) An algae bloom can cause which of the following:

- A. odors and tastes in treated drinking water
- B. fish kills
- C. fatal illness in pets who come into contact with HAB
- D. illnesses in humans who recreate in waters experiencing algae blooms
- E. unsightly mats of growth on the water and beaches

4) Which of these can trigger a HAB?

- A. fertilizer runoff
- B. non-working septic tanks
- C. animal manure runoff
- D. heavy metal contamination

5) The toxins released by a HAB can affect:

- A. the liver
- B. your heart
- C. nervous system
- D. skin

Answers:  
1. B  
2. D  
3. All  
4. A, B and C  
5. A, C and D

## LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

125 E. Erie St., Painesville, OH 44077

Phone: 440-350-2730

Fax: 440-350-2601

East End: 428-4348 ext. 2730

West End: 918-2730

1-800-899-LAKE ext 2730

Office Hours: Mon.-Fri. 7:30 am-4:00 pm

E-MAIL: [SOIL@LAKECOUNTYOHIO.GOV](mailto:SOIL@LAKECOUNTYOHIO.GOV)

WEB SITE: [WWW.LAKECOUNTYOHIO.GOV/SOIL](http://WWW.LAKECOUNTYOHIO.GOV/SOIL)

DAN DONALDSON, District Administrator	350-2030
CHAD EDGAR, Urban Stream Specialist	350-2032
BETH LANDERS, Education/Information Coordinator	350-2033
MAURINE ORNDORFF, Agricultural Programs Technician	350-5863
MATTHEW SCHARVER, Resource Protection Specialist	350-2031
AL BONNIS, District Conservationist, NRCS	437-5888
JOHN NIEDZIALEK, Western Reserve RC&D Coordinator	350-2034

### BOARD OF SUPERVISORS

**DICK BAKER (1998-2006, 2008), NORTH PERRY, VICE CHAIR**  
**BILLIE KAMIS (2006), WILLOUGHBY HILLS, CHAIR**  
**BRUCE LANDEG (2007), MENTOR, FISCAL AGENT**  
**SKIP DUGAN (2009), PERRY, TREASURER**  
**JEFF HYRNE (2010), MADISON TOWNSHIP, SECRETARY**

### MEMBER OF:

- American Farmland Trust • Lake County Farm Bureau
- Nursery Growers of Lake County Ohio
- National Association of Conservation Districts
- Ohio Federation of Soil & Water Conservation Districts

**AN EQUAL OPPORTUNITY EMPLOYER:** All Lake SWCD and USDA programs and services are available without regard to race, age, gender, national origin, political beliefs, color, religion, disability, sexual orientation, or marital or family status.

The public is invited to attend Lake SWCD's monthly Board meetings, held the fourth Tuesday of the month at 4:00 pm at 125 East Erie St., Painesville. Meeting announcements appear under the public agenda in the News-Herald and on the Lake SWCD website. Please call in advance to let us know you will be attending.